

WHAT IS CLAIMED IS:

1                   1.       In a multi-processor computing environment, a method by a first  
2 processor for allocating resources for use by a second processor, the method comprising:  
3                   providing a script to the first processor, the script containing information  
4 related to the resources required by the second processor and when required;  
5                   parsing the script to determine the resources required by the second processor;  
6 and  
7                   dynamically allocating the resources at the time needed by the second  
8 processor.

1                   2.       The method of claim 1 wherein the script further comprises  
2 information related to resources required by a third processor; and  
3 dynamically allocating the resources at the time needed by the third processor.

1                   3.       The method of claim 3 further comprising  
2 dedicating the first processor to processing the script.

1                   4.       The method of claim 1 wherein the resources are memory and matrix  
2 configuration.

1                   5.       The method of claim 1 wherein the information is the execution  
2 sequence of the program.

1                   6.       The method of claim 1 wherein the information is the amount of buffer  
2 memory needed by the program.

1                   7.       A method by a processor for allocating resources for use by one or  
2 more tasks in a multi-processor computing environment, the method comprising:  
3                   providing a script to the processor, the script containing a map of sequences  
4 that will occur during execution of the one or more tasks;  
5                   parsing the script to determine resources required based on the map of  
6 sequences; and

7 allocating the resources immediately prior to execution of the task.

1                   8.       The method of claim 7 wherein the script is an I/O processor script.

1                    9.     A predictive resource allocation system for a multi-processor  
2     computing environment having two or more processors, comprising:  
3                    a first processor;  
4                    a dedicated processor dedicated to providing resource allocation to the first  
5     processor;  
6                    a script file containing information related to the resources required by the  
7     second processor;  
8                    a script engine for running the script file, the dedicated processor in  
9     conjunction with the script engine parsing the script to determine the resources required by  
10    the second processor; and  
11                   the dedicated processor dynamically allocating the resources at the time  
12    needed by the first processor.

1                    10.    The system of claim 9 wherein the script further comprises  
2                    information related to resources required by a third processor; and  
3                    the dedicated processor dynamically allocating the resources at the time  
4    needed by the third processor.

1                    11.    A method by a processor for allocating resources for use by two or  
2    more tasks in a multi-processor computing environment, the method comprising:  
3                    providing a script to the processor, the script containing a map of sequences  
4    that will occur during execution of the tasks;  
5                    parsing the script to determine the map of sequences for the tasks and to  
6    determine the resources required by the tasks; and  
7                    allocating the resources to tasks such that resource allocation is synchronized  
8    with when the resources are needed by tasks.

1                    12.    The method of claim 11 wherein allocating the resources further  
2    comprises  
3                    dynamically allocating the resources at the time needed by the tasks.